

89. (amended) The expression vector of Claim 88, wherein said nucleic acid molecule is operably linked to regulatory sequences to control expression of said nucleic acid molecule.

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91. (amended) A host cell transformed with the nucleic acid molecule of Claim 9.

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95. (amended) The host cell of Claim 91, wherein said bacterium is *E. coli* or *Streptomyces*.

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96. (amended) A cosmid comprising a nucleic acid molecule from the calicheamicin biosynthetic gene cluster from *Micromonospora echinospora*, wherein said nucleic acid molecule comprises SEQ ID No. 35.

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98. (amended) A method of expressing a protein comprising the steps of transfecting a host cell with the expression vector of Claim 88 and incubating said cell for a length of time and under conditions sufficient for expression of said protein wherein said protein comprises SEQ ID No. 36.

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99. (amended) The method of Claim 98, wherein said host cell is a bacterial, yeast, insect, plant, fungal, or mammalian cell.

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145. (amended) An isolated nucleic acid molecule coding for an amino acid sequence comprising SEQ ID No. 36.

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Please add the following new claims:

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--150. (new) The isolated nucleic acid molecule of Claim 9, wherein said nucleic acid molecule comprises the entire calicheamicin gene cluster from *Micromonospora echinospora*.

151. (new) The cosmid of Claim 96, wherein said cosmid comprises the entire calicheamicin gene cluster from *Micromonospora echinospora*.

152. (new) An isolated nucleic acid that hybridizes to a corresponding portion of the isolated nucleic acid of Claim 9 under high stringency conditions, where the corresponding portion is no more than 15% larger or smaller than SEQ ID No. 35.

153. (new) An isolated nucleic acid that has at least 90% sequence identity to a corresponding portion of the isolated nucleic acid of Claim 9, where the corresponding portion is no more than 15% larger or smaller than SEQ ID No. 35.

154. (new) An isolated nucleic acid that has at least 80% sequence identity to a corresponding portion of the isolated nucleic acid of Claim 9, where the corresponding portion is no more than 15% larger or smaller than SEQ ID No. 35.

155. (new) An isolated nucleic acid that has at least 70% sequence identity to a corresponding portion of the isolated nucleic acid of Claim 9, where the